

Attorney Docket No. 47563.0017

Application No. 10/726,826

Listing of the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1-34. (Canceled)

35. (Currently Amended) A method of sealing a tissue puncture in an internal tissue wall accessible through a percutaneous incision, comprising:

providing a tissue puncture closure device comprising a carrier tube with a filament extending therethrough, the filament connected at a distal end of the carrier tube to an anchor, the anchor seated in a multi-level nest disposed in the carrier tube, the filament also connected to a sealing plug located proximal of the anchor for disposition and anchoring about the tissue puncture;

inserting the tissue puncture closure device into the percutaneous incision;

deploying the anchor into the tissue puncture;

withdrawing the closure device from the percutaneous incision; and

tamping the sealing plug toward the anchor.

36. (Original) A method of sealing a tissue puncture in an internal tissue wall accessible through a percutaneous incision according to claim 35 wherein the deploying the anchor further comprises sliding a monofold tip of an insertion sheath into a gap formed between the anchor and the multi-level nest disposed in the carrier tube.

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37. (Currently Amended) A method of reducing anchor shuttle in a subcutaneous tissue puncture sealing device comprising providing a gap that extends between a carrier tube of the tissue puncture sealing device and the anchor in a direction that is transverse to the carrier tube, the gap being created by ~~creating~~ a multi-level nest in the carrier tube or indenting an indentation in the anchor.

38. (Original) A method of reducing anchor shuttle in a subcutaneous tissue puncture sealing device according to claim 37 wherein the anchor initially seats in the multi-level nest.

39. (Currently Amended) A method of reducing anchor shuttle in a subcutaneous tissue puncture sealing device, comprising providing a gap according to claim 37, further comprising coupling the puncture sealing device to an insertion sheath having a one-way valve allowing the anchor ~~to pass therethrough in a first one~~ direction, but not allowing the anchor to ~~pass in second direction~~ back in an opposite direction.

40. (Canceled)

41. (New) The method of sealing the tissue puncture of claim 35 wherein the tissue puncture is a blood vessel puncture.

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42. (New) The method of sealing the tissue puncture of claim 35 wherein deploying the anchor includes moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

43. (New) The method of sealing the tissue puncture of claim 35 wherein the multi-level nest includes a first surface that is in contact with the anchor and a second surface recessed in the carrier tube relative to the first surface.

44. (New) A method of sealing a tissue puncture comprising:

inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the carrier tube including a first surface that is in contact with the anchor and a second surface that is adjacent to the anchor and recessed in the carrier tube relative to the first surface; and

positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

45. (New) The method of claim 44 wherein the tissue puncture is a blood vessel puncture.

46. (New) The method of claim 44 wherein the second surface is positioned adjacent to one end of the anchor.

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47. (New) The method of claim 44 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.

48. (New) The method of claim 44 comprising moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

49. (New) A method of sealing a tissue puncture comprising:
inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the anchor and the carrier tube being positioned so that a gap is formed between the anchor and the carrier tube in a direction that is transverse to the carrier tube; and

positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

50. (New) The method of claim 49 comprising moving a tip of an insertion sheath into the gap to deploy the anchor.

51. (New) The method of claim 49 wherein the tissue puncture is a blood vessel puncture.

52. (New) The method of claim 49 wherein the gap is positioned adjacent to one end of the anchor.

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53. (New) The method of claim 49 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.

54. (New) The method of claim 49 comprising moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

55. (New) A method of sealing a tissue puncture comprising:
inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the carrier tube including a first surface that is in contact with the anchor and a recess positioned adjacent to the anchor, the recess extending further into the carrier tube than the first surface; and
positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

56. (New) The method of claim 55 comprising moving a tip of an insertion sheath into the recess to deploy the anchor.

57. (New) The method of claim 55 wherein the tissue puncture is a blood vessel puncture.

58. (New) The method of claim 55 wherein the recess is positioned adjacent to one end of the anchor.

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59. (New) The method of claim 55 wherein the recess extends between the carrier tube and the anchor to form a gap between the carrier tube and the anchor in a direction that is transverse to the carrier tube.

60. (New) The method of claim 55 wherein part of the recess is covered by the anchor.

61. (New) The method of claim 55 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.

62. (New) The method of claim 55 comprising moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

63. (New) A method of sealing a tissue puncture comprising:

inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the anchor and the carrier tube being positioned in contact with each other;

moving a tip of an insertion sheath underneath the anchor to deploy the anchor; and

positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

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64. (New) The method of claim 63 wherein the tissue puncture is a blood vessel puncture.

65. (New) The method of claim 63 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.

66. (New) The method of claim 63 wherein the insertion sheath deploys the anchor by moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

67. (New) A method of sealing a tissue puncture comprising:

inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the anchor being indented so that a gap is formed between the anchor and the carrier tube; and

positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

68. (New) The method of claim 67 wherein the tissue puncture is a blood vessel puncture.

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69. (New) The method of claim 67 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.

70. (New) The method of claim 67 comprising moving the anchor away from the carrier tube and rotating the anchor to be transverse to the carrier tube.

71. (New) A method of sealing a tissue puncture comprising:

inserting a tissue puncture closure device into the tissue puncture, the tissue puncture closure device including a carrier tube, a sealing plug, and an anchor, the carrier tube and the anchor being in contact with each other, the carrier tube including a recess positioned adjacent to one end of the anchor; and

positioning the sealing plug and the anchor across the tissue puncture to close the tissue puncture.

72. (New) The method of claim 71 comprising moving a tip of an insertion sheath into the recess to deploy the anchor.

73. (New) The method of claim 71 wherein the tissue puncture is a blood vessel puncture.

74. (New) The method of claim 71 wherein the recess is positioned adjacent to one end of the anchor.

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75. (New) The method of claim 71 wherein the recess extends between the carrier tube and the anchor to form a gap between the carrier tube and the anchor in a direction that is transverse to the carrier tube.

76. (New) The method of claim 71 wherein part of the recess is covered by the anchor.

77. (New) The method of claim 71 wherein the tissue puncture closure device includes a filament configured to couple the sealing plug and the anchor together across the tissue puncture.